

Title (en)

METHOD FOR REAL-TIME ESTIMATION OF ENGINE COMBUSTION PARAMETERS FROM VIBRATORY SIGNALS

Title (de)

VERFAHREN ZUR ECHTZEITSCHÄTZUNG VON MOTORVERBRENNUNGSPARAMETERN AUS SCHWINGUNGSSIGNALEN

Title (fr)

METHODE D'ESTIMATION EN TEMPS REEL DE PARAMETRES DE COMBUSTION D'UN MOTEUR A PARTIR DE SIGNAUX VIBRATOIRES

Publication

**EP 1994390 A1 20081126 (FR)**

Application

**EP 07731108 A 20070307**

Priority

- FR 2007000410 W 20070307
- FR 0602111 A 20060308

Abstract (en)

[origin: WO2007101946A1] The invention concerns a method for real time estimation of combustion engine parameters from vibratory signals. It consists in continuously acquiring, from a vibration sensor, and based on a crankshaft angle a vibratory signal representing the vibrations of the engine; real time filtering of said vibratory signal, and estimating in real time the coefficients of the Fourier decomposition of the acquired vibratory signal, by reversing the dynamics of the filter used; finally, from said coefficients, estimating in real time the combustion parameters enabling the combustion to be qualified. The invention is useful for controlling combustion of an internal combustion engine.

IPC 8 full level

**G01M 15/12** (2006.01)

CPC (source: EP US)

**G01M 15/12** (2013.01 - EP US)

Citation (search report)

See references of WO 2007101946A1

Designated contracting state (EPC)

DE GB IT

DOCDB simple family (publication)

**FR 2898411 A1 20070914; FR 2898411 B1 20080516**; DE 602007002061 D1 20091001; EP 1994390 A1 20081126; EP 1994390 B1 20090819; JP 2009529115 A 20090813; JP 4871962 B2 20120208; US 2009030593 A1 20090129; US 7747380 B2 20100629; WO 2007101946 A1 20070913

DOCDB simple family (application)

**FR 0602111 A 20060308**; DE 602007002061 T 20070307; EP 07731108 A 20070307; FR 2007000410 W 20070307; JP 2008557799 A 20070307; US 28179807 A 20070307